

**AIR POLLUTION CONTROL DISTRICT
COUNTY OF SAN DIEGO**

**DRAFT PROPOSED NEW
RULE 67.12.1 – POLYESTER RESIN OPERATIONS**

WORKSHOP REPORT

A workshop notice on the draft proposed new Rule 67.12.1 – Polyester Resin Operations, was mailed to all permit holders in San Diego County. Notices were also mailed to all economic development corporations and chambers of commerce in San Diego County, trade associations, various resin manufacturers, the U.S. Environmental Protection Agency (EPA), the California Air Resources Board (ARB), and other interested parties.

The workshop was held on July 21, 2015, and was attended by 17 people. Oral and written comments were received before, during, and after the workshop. A summary of the comments and the Air Pollution Control District's (District) responses to these comments are as follows:

1. WORKSHOP COMMENT

Since compliant polyester resin materials have already penetrated the San Diego County market due to similar regulations in place in nearby California air districts such as the South Coast Air Quality Management District (SCAQMD), are all affected facilities within the County already in compliance with the proposed new rule? Did the District identify any polyester resin materials that are not in compliance with the proposed new rule?

DISTRICT RESPONSE

Yes, with the exception of two individual products, all of the affected facilities within San Diego County are already in compliance with the proposed monomer content percent limits specified in Subsection (d)(1). The two individual polyester resin materials that are not in compliance with the proposed new rule are (1) a corrosion resistant resin at 48.5% styrene (the proposed limit is 48%), and (2) a non-white gel coat at 41% (the proposed limit is 37%). The facilities using these materials are aware of the discrepancy, and the proposed compliance schedule provides up to one year after the date of rule adoption to switch to compliant materials.

2. WORKSHOP COMMENT

The District should include an alternative annual usage exemption limit, in addition to the new proposed 20 gallon per month exemption in amended Subsection (b)(1), for those facilities that only perform polyester resin operations intermittently throughout the year.

DISTRICT RESPONSE

The District disagrees. The proposed 20 gallon per month exemption is consistent with analogous rules in other California air districts.

3. WORKSHOP COMMENT

The District should add an additional polyester resin material category to Subsection (d)(1)(i) for “Tooling Resins” with a monomer content percent limit of 55%. Even though used in relatively small quantities, tooling resin is an important type of polyester raw material for composites manufacturers. A tool (mold) is used many times – sometimes hundreds of times – to make composite products, and the resin used to manufacture a tool has to perform successfully in this very demanding service. In recognition of the very high level of performance needed for tooling resin, the organic Hazardous Air Pollutant (HAP) emission limits for open mold application of tooling resin in EPA's Subpart WWWW – National Emissions Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production, allows up to 55% monomer content for these materials.

DISTRICT RESPONSE

The District disagrees that a separate category for “Tooling Resin” is necessary. Many facilities use corrosion resistant resins for tooling applications. The “Corrosion Resistant Resins” category has a monomer content limit of 48%. The proposed definition of “Corrosion Resistant Resin” in Section (c) has been amended to clarify that tooling is an example of a corrosion resistant application. This proposed new language is consistent with analogous rules in other California air districts.

4. WORKSHOP COMMENT

Proposed Subsection (b)(2) exempts closed mold polyester resin operations from complying with the monomer content percent limits and the application equipment standards specified in Subsections (d)(1) and (d)(2), respectively. Accordingly, the District should clarify in proposed Subsection (d)(2) that the specified application equipment standards do not apply to closed molding operations, as provided in Subsection (b)(2).

DISTRICT RESPONSE

The District agrees and has added language to proposed Subsection (d)(2) to clarify that the application equipment standards do not apply to closed mold polyester resin operations.

5. WORKSHOP COMMENT

Proposed Subsection (d)(2) specifies various application equipment and methods for polyester resin operations. With the exception of the application methods listed at Subsection (d)(2)(i) – manual application and other non-atomizing techniques, the application methods listed are spray painting technologies that are not used in composites manufacturing, i.e., electrostatic spray; air-assisted airless spray; airless spray; and HVLP (High-Volume, Low-Pressure) spray. The District should consider adding similar application equipment options to those listed in the SCAQMD Rule 1162 – Polyester Resin Operations, Subsection (c)(1)(A), which reflect the currently available low-emission application equipment for polyester resin open molding operations.

DISTRICT RESPONSE

Proposed Subsection (d)(2)(i) is intended to allow for the application equipment and methods specified in SCAQMD Rule 1162 Subsection (c)(1)(A). To clarify this point, the District has added definitions for “manual application” and “non-atomizing application” to proposed Section (c). These definitions identify the technology options listed in SCAQMD Rule 1162.

6. WORKSHOP COMMENT

With regard to volatile organic compound (VOC) emissions, the District's due diligence shows that most facilities are already in compliance with the proposed polyester resin material monomer content standards specified in Subsection (d)(1). With regard to particulate emissions, facilities keep their sanding and grinding operations to a minimum, and the fire code already requires clean up. Why does the District propose to regulate these sanding and grinding operations in this rule?

DISTRICT RESPONSE

Sanding and grinding operations are commonly performed in conjunction with composites manufacturing and are a source of particulate matter, which is a regulated air pollutant and subject to ambient air quality standards under federal and State law. To ensure such operations do not cause or contribute to an air quality problem, proposed Subsection (d)(5) requires these operations to be conducted inside a controlled enclosure or using a controlled process. The District has proposed language in Subsection (b)(4)(ii) that will exempt this requirement for very small polyester resin operations.

7. WORKSHOP COMMENT

Existing Rule 67.12 – Polyester Resin Operations, has a requirement for self-closing containers in Subsection (d)(1)(iv). Why was the requirement for self-closing containers excluded from the draft proposed new rule?

DISTRICT RESPONSE

At the time existing Rule 67.12 was written, acetone was considered a VOC. In order to minimize VOC emissions, the requirement for self-closing containers was added. Since then, EPA has added acetone to the list of compounds excluded from the definition of a VOC. Therefore, the self-closing container requirement is no longer necessary. However, due to acetone's high flammability, it is recommended that facilities store acetone according to local fire safety codes and regulations. The storage of polyester resin materials would be subject to Rule 67.17 – Storage of Materials Containing Volatile Organic Compounds, which requires all containers used to store, transfer, or apply materials containing VOC to remain closed when not in use.

8. WORKSHOP COMMENT

In some District rules, manufacturers are required to meet the VOC limits in the rule, and therefore are required to sell only compliant materials within San Diego County. Are manufacturers required to meet the monomer content percent limits in draft proposed new Rule 67.12.1, and sell only compliant products?

DISTRICT RESPONSE

No, the draft proposed new rule does not require manufacturers to sell only compliant products. Since some operations are exempt from complying with the monomer content standards specified in Subsection (d)(1), there is no prohibition on the manufacture of non-compliant products.

9. WORKSHOP COMMENT

The District stated that upon the implementation of draft proposed new Rule 67.12.1, it will begin to use the EPA recommended Unified Emission Factors (UEF) for polyester resin operations in place of the 1995 EPA AP-42 emission factors. What effect will these new emission factors have on facilities within San Diego County?

DISTRICT RESPONSE

The UEF emission factors have been used by the District's Engineering Division for the past several years when processing new permit applications and a number of facilities are already using these factors to calculate their VOC emissions. The existing polyester resin permits and permit conditions have been reviewed and the District does not expect there to be any negative effect on existing facilities from the use of the new UEF emission factors. The District will work with the affected facilities, through its Small Business Assistance Coordinator, to facilitate the transition to the new UEF factors.

10. WORKSHOP COMMENT

Some permits for polyester resin operations have permit conditions that require facilities to use polyester resin materials below a specified monomer content percent limit. With the lower monomer content percent limits now being proposed in draft new Rule 67.12.1, how will changes to these permit conditions be made once the rule has been adopted by the Air Pollution Control Board?

DISTRICT RESPONSE

Following rule adoption, the District's Engineering Division will review the affected permits for appropriate changes consistent with the new rule. A small number of these permits may require a permit application to re-evaluate and appropriately revise the permit. For the majority of the required permit revisions, the District plans to make the necessary changes directly (without the need for a permit application) and will send copies of these permits with the updated conditions to the affected facilities for review.

11. EPA COMMENT

The exemption in proposed Subsection (b)(1) applies to polyester resin operations that emit less than 5 pounds of VOC per operating day for each calendar month. On a gallon per month volume basis of polyester resin usage, this value greatly exceeds the allowable exemptions in other analogous rules such as 20 gallons per month in Eastern Kern Air Pollution Control District (EKAPCD) Rule 432, Subsection III.A, and no exemption in SCAQMD Rule 1162. Please consider removing or lowering the proposed exemption level.

DISTRICT RESPONSE

The District agrees. The proposed 5 pounds of VOC per day threshold exemption has been deleted and a proposed new exemption has been added in its place for 20 gallons per month of polyester resin materials. In order to align the permit exemption thresholds with Rule 67.12.1 applicability, the District also proposes to amend the polyester resin permit exemption thresholds found in Rule 11 (Exemptions from Permit Requirements), Subsection (d)(13)(vi), from 5 pounds of VOC per day to 20 gallons per month.

12. EPA COMMENT

In proposed Section (c), please add definitions for "manual application" and "non-atomizing application" similar to those in EKAPCD Rule 432 II, FF and NN respectively, or in San Joaquin Valley Air Pollution Control District (SJVAPCD) Rule 4684, 3.34 and 3.42 respectively.

DISTRICT RESPONSE

The District agrees. Definitions for "manual application" and "non-atomizing application" have been added to draft proposed new Rule 67.12.1.

13. EPA COMMENT

In proposed Subsection (d)(1)(i), please add additional resin categories and monomer content percent limits for resins with fillers and without fillers for marble resins, tub/shower resins, lamination resins as well as for solid surface resins. See SCAQMD Rule 1162(c)(2)(A) or EKAPCD Rule 432 IV.A., Table 1.

DISTRICT RESPONSE

The District agrees. New resin categories and monomer content percent limits have been added to the proposed new rule for marble resins, tub/shower resins, lamination resins, and solid surface resins.

14. EPA COMMENT

In proposed Subsection (d)(3)(ii), the allowance of up to 200 grams or less per liter VOC content limit, or a total VOC vapor pressure of 45 mm Hg or less, for solvent cleaning materials used for aerospace components, is consistent with the Control Technique Guideline (EPA-453/R-97-004) (Control of VOC Emissions from Coating Operations at Aerospace Manufacturing and Rework Operations) and SCAQMD Rule 1124 (Aerospace Assembly and Component Manufacturing Operations). However, please consider a 25 grams or less per liter VOC content limit for aerospace components similar to the limit specified in Subsection (d)(3)(i) for non-aerospace components.

DISTRICT RESPONSE

The District agrees. The proposed 200 grams or less per liter VOC content limit or a total VOC vapor pressure of 45 mm Hg or less for aerospace solvent cleaning materials has been deleted.

15. EPA COMMENT

In proposed Subsection (e)(1)(iii), we recommend revising the combined emissions capture and control device efficiency to 90% by weight instead of 85%, consistent with other air districts, such as SCAQMD Rule 1162(d) and EKAPCD Rule 432 IV.A.4.b.

DISTRICT RESPONSE

The proposed combined emissions capture and control device efficiency has been amended to 90% by weight. In San Diego County, polyester resin operations are normally conducted in large open warehouse type settings, in which a 90% combined capture and control device efficiency may be difficult to achieve. Proposed Section (e) allows facilities the option of installing control equipment in lieu of complying with the provisions in Section (d) – Standards. However, since compliant materials are readily available, the District does not expect facilities to use this control option to come into compliance.

16. EPA COMMENT

In proposed Subsection (f)(1)(i)(B) – Recordkeeping, the VOC content should be included in the recordkeeping requirements (see, e.g., SCAQMD Rule 1162(e)(1)(B) or EKAPCD Rule 432 V.A.2).

DISTRICT RESPONSE

The District agrees. Language has been added to proposed Subsection (f)(1)(i)(B) to require the VOC content for resin additives to be recorded.

17. EPA COMMENT

In proposed Subsection (f)(3), it is recommended that records be retained on site for five years instead of three years (see, e.g., SJVAPCD Rule 4684, 6.1.7., and EKAPCD Rule 432 V.A.7.)

DISTRICT RESPONSE

The District disagrees. The three year records retention requirement is consistent with all other District prohibitory rules. A five year records retention requirement places too great a burden on local facilities.

18. ARB COMMENT

ARB has no official comments at this time.

MWA:AMO:jl
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